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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/555,320	11/03/2005	Zheng Dai	280163US3PCT	9074

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EXAMINER	
WILLIAMS, ARUN C	

ART UNIT	PAPER NUMBER
2838	

NOTIFICATION DATE	DELIVERY MODE
01/30/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/555,320

Applicant(s)

DAI ET AL.

Examiner

Arun Williams

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/03/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**4. Claims 1-5,8,9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable by Takehara et al, (Takehara), US 2002/0067628 in view of Hulick, USPAT 4,804,931**

As for claim 1,8, Takehara discloses and shows in Fig. 1 A power supply apparatus comprising: a inverter (14) (applicant's system linkage inverter) that converts DC to AC electrical power and supply the AC electrical power to the connection terminal(11)(applicant's load) connect to a commercial power system (2) ( applicant's system power supply); a circuit(16) connected to load and system to detect voltage and current; a controller (15) (applicant's calculating unit and control unit) for calculating and controlling the power flow of the load (4) (pg.1, par. [0011]). Still lacking a dummy load connected parallel to said load through power relay. Hulick shows in Fig. 14 dummy load (34) connected parallel to said load (52) through power device (32). Hulick is evidence that ordinary skill in the art would find a reason, suggestion or motivation to have a dummy in parallel with a load. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify as an electronic display for advantages such as providing a cascade topology (col.4, lines 54-56), as taught by Hulick.

As for claims 2, 5, and 9, Takehara discloses detecting the voltage, current, and power into and out of the commercial power system (applicant's system power supply) system to the connection terminal (11) (load); calculations of the power respect to constant periods is implied (pg.1, par.[0009])

As for claims 3 and 13, Takehara discloses a load (4) being turned on based on

being set to be performed at preset power value (pg.2, par.[0034]).

As for claim 4, Takehara discloses the amount of power that's being delivered is reversed when the load is turned on (pg.3, par.[0042]).

**5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takehara in view of Hulick and Suzui et al,(Suzui), US 2002/0085397.**

Takehara and Hulick differs from the claimed invention because he does not explicitly disclose a power device comprising a thyristor(pg.3, par.[0050]).

Suzui discloses and shows in Fig. 1 discloses converter section (27) (applicant's power device) being a thyristor.

Suzui is evidence that ordinary skill in the art would find a reason, suggestion or motivation to use a thyristor.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Takehara and Hulick by using a thyristor for advantages such as providing appropriate operation (pg.1, par.[0006]), as taught by Suzui.

**6. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takehara and Hulick in view of Ragsdale, (Ragsdale), USPAT 5,280,404.**

Takehara and Hulick differs from the claimed invention because he does not explicitly disclose the power device comprising an SSR and filter between the power device and dummy load.

Ragsdale shows in Fig. 1 an SSR (22)(applicant's power device) wherein it being between a load (applicant's dummy load) and filter (15).

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Ragsdale is evidence that ordinary skill in the art would find a reason, suggestion or motivation to use SSR and have a filter between the power device and dummy load.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Takehara and Hulick by using SSR and have a filter between the power device and dummy load for advantages such as providing the convenience of operating in a noisy environment (col.2, line 26), as taught by Ragsdale.

**7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takehara and Hulick in view of Madenokouji et al,(Madenokouji), USPAT 6,046,919**

Takehara and Hulick differs from the claimed invention because he does not explicitly disclose a storage unit.

Madenokouji discloses and shows in Fig. 1 an EEPROM (44) (applicant's storage unit) (col.9, lines 38-50).

Madenokouji is evidence that ordinary skill in the art would find a reason, suggestion or motivation to use a storage unit.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Takehara and Hulick by using a storage unit for advantages such as providing data to be electrical read (col.9, line 45), as taught by Madenokouji.

**8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takehara and Hulick in view of Sarin,(Sarin), USPAT 5,838,947.**

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Takehara differs from the claimed invention because he does not explicitly disclose outputting data of an electric power value from the calculating unit to an external apparatus.

Sarin discloses and shows in Fig. 7 outputting data of an electric power value from the an engine (232) (calculating unit) to an PWG display (246) (external apparatus)(col.8, lines 41-64).

Sarin is evidence that ordinary skill in the art would find a reason, suggestion or motivation to output data of an electric power value from the calculating unit to an external apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Takehara and Hulick by outputting data of an electric power value from the calculating unit to an external apparatus for advantages such as the ability to model and characterize power behavior (col.2, line 10),as taught by Sarin .

### ***Response to Arguments***

1. Applicant's arguments filed 11/1/2007 have been fully considered but they are not persuasive.

2. In response to applicants' argument that

I. The Official Action at page 3 asserts that connection terminal 11 meets the claimed load. However, a careful review of Figure 2 of Takehara et al. reveals that element 11 is a terminal or plug to the system AC power supply" (see pg. 8)

II. "Claim 1 recites that the dummy load is connected in parallel to the load. At the outset, Applicants note that because Takehara et al. only describes load 4, the reference does not describe a dummy load connected in parallel to a load." (see pg. 9)

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III. "the claimed circuit is connected to both the load and the system power supply" (see pg. 9)

3. the examiner respectfully submits,

I. The connection terminal 11 is considered as a load because a load has resistance, therefore terminal 11 is a load

II. The Examiner agrees with applicant on this argument.

III. This limitation is not claimed.

***Conclusion.***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun Williams whose telephone number is 571-272-9765. The examiner can normally be reached on Mon - Thurs 6:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AKM ULLAH can be reached on 571-272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.




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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Arun Williams  
Examiner  
Art Unit 2838

AW



**BAO Q. VU**  
**PRIMARY EXAMINER**